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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,645	10/15/2003	Manojkumar Saranathan	GEMS8081.176	2644
27061 7590 09/09/2008 ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (GEMS) 136 S WISCONSIN ST PORT WASHINGTON, WI 53074			EXAMINER ABRAHAM, SALIEU M	
			ART UNIT 3768	PAPER NUMBER
			NOTIFICATION DATE 09/09/2008	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@zpspatents.com  
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klb@zpspatents.com

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No.	Applicant(s)	
	10/605,645	SARANATHAN ET AL.	
	Examiner	Art Unit	
	SALIEU M. ABRAHAM	3768	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 16 July 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 1, 2, 4-14 and 16 - 25.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

/Brian L Casler/  
Supervisory Patent Examiner, Art Unit 3737

Continuation of 11. does NOT place the application in condition for allowance because: 1. Applicant's arguments with regard to claims 1, 2, 4-14 and 16-25 filed July 16, 2008 have been fully considered, but they are not persuasive.

2. The crux of applicant's arguments are centered around independent claims 1, 11 and 20 the Jezzard reference. Specifically, the applicant states:

a) Jezzard is non-analogous art/does not provide proper motivation for combination with primary references.

b) Jezzard does not "sufficiently" disclose or teach "applying a dummy pulse after each MP pulse".

c) Also regarding claim 20 -- examiner rejections of claims 1 and 20 are contradictory.

3. Regarding item a): applicant admits that their proposed invention is intended to help to "greatly improve image quality with the reduction of ghosting artifacts typically associated with steady state effects" (See Applicant Specification, Para. [0030]). Applicant further admits that in addition to "improving image quality" as well as facilitating image acquisition speed/throughput (See Applicant Specification, Para. [0008]). These are significant because in addition to reducing noise related artifacts (i.e. applicant's ghosting), the Jezzard reference discloses these areas as key ones towards which its application of dummy acquisitions is directed (see Jezzard section 6.2, paragraph 1, pp. 433-434). Further, Jezzard discloses that this type of (dummy acquisition) protocol is applicable to any of a number of pulse sequences that result in non-steady state spin conditions due to the state of spins which have not had sufficient time to reach steady state when sampling regions of k-space (see Jezzard section 6.2, paragraphs 1, 2 and 4, pp. 433-434, and equations 11-13). Therefore, one of ordinary skill would find it obvious that employing dummy acquisitions per Jezzard would be applicable to any MR based image acquisition that needs to correct artifact or noise effects due to non-steady state conditions irrespective of the pulse sequence used and as taught by Jezzard (see remarks supra). Therefore, the reference is both analogous and properly motivated for application to the lacking elements of the primary references.

4. Regarding item b): per item a), the Jezzard technique is directed toward any MR image acquisition protocol where spin steady state irregularities result in image artifact/noise (see remarks supra). Applicant further discloses as much on page 8 in the arguments against Jezzard for the claim 11 rejection; specifically: "the Jezzard reference merely discloses that "[a] well-designed pulse sequence will incorporate enough 'dummy scan' acquisitions that when the image signal is detected, the spins have reached a steady state." Jezzard, Section 6.2, p. 434. Also see p.434, paragraph 1, sentences 1-12 and references to image quality and acquisition throughput improvements to be encompassed by ANY pulse sequence "run in a partially saturated state" (emphasis added). This is the problem that applicant cites the proposed invention is directed toward addressing (see Applicant Specification, Para. [0007- 0008]). It is clear from here that the Jezzard application of dummy scans is generally applicable to ANY of plurality of pulse sequences, of which applicant's magnetization preparation pulse sequence applies and this would be readily recognized by one of ordinary skill in the art.

5. Regarding item c): the word "not" was inadvertently omitted in the motivation rationale section. Applicant includes arguments for the claim rejection including the Jezzard reference to modify the two primary references with regard to the application of dummy acquisitions as discussed in the arguments supra and this was the intended rejection. Therefore, the claim rejection is directed toward the primary references "not" teaching dummy acquisitions and this is consistent with claim 1 and that it is obvious from the rejection structure the in spite of the mistakenly omitted "not". In this light, applicant's arguments are addressed in the remarks for items a) and b).